CLAIMS

We claim:

~~1. An antibody that binds specifically to a RET antigen.~~

2. An antibody according to claim 1, wherein said RET antigen consists essentially of the extracellular domain of RET.

3. An antibody according to claim1, wherein said antibody is a monoclonal antibody, produced by a hybridoma cell line.

4. A method for the enrichment of neural progenitor cells, said method comprising:

a) combining a mixed population of neural-crest derived cells comprising neural progenitor cells with a reagent that specifically binds to a RET antigen; and

b) selecting for RET positive cells.

5. A method according to claim 4 wherein said reagents are antibodies.

6. A method according to claim 5, wherein at least one of said antibodies is fluorochrome conjugated.

7. A method according to claim 6, wherein said selecting with said fluorochrom conjugated antibodies is by flow cytometry.

8. A substantially pure population of neural progenitor cells.

9. A population according to claim 8 wherein said neural progenitor cells are multipotent neuronal progenitor (proNP) cells.

10. A population according to claim 8 wherein said neural progenitor cells are nonneuronal progenitor (NNP) cells.

11. A population according to claim 8 wherein said neural progenitor cells are committed neuronal progenitor (NP) cells.

12. A population according to claim 8 wherein said neural progenitor cells are bound to a reagent that specifically binds to RET antigen.

13. A population according to claim 12 wherein said reagent is a RET antibody.

14. A population according to claim 13 wherein said antibody is a monoclonal antibody.